



Billing Code: 5001-06

DEPARTMENT OF DEFENSE

Office of the Secretary

[Transmittal No. 17-43]

Arms Sales Notification

AGENCY: Defense Security Cooperation Agency, Department of Defense.

ACTION: Arms sales notice.

SUMMARY: The Department of Defense is publishing the unclassified text of an arms sales notification.

FOR FURTHER INFORMATION CONTACT: Karma Job at karma.d.job.civ@mail.mil or (703) 697-8976.

SUPPLEMENTARY INFORMATION: This 36(b)(1) arms sales notification is published to fulfill the requirements of section 155 of Public Law 104-164 dated July 21, 1996. The following is a copy of a letter to the Speaker of the House of Representatives, Transmittal 17-43 with attached Policy Justification.

Dated: February 1, 2019.

Shelly E. Finke,

*Alternate OSD Federal Register Liaison Officer,
Department of Defense.*



DEFENSE SECURITY COOPERATION AGENCY

201 12TH STREET SOUTH, STE 203
ARLINGTON, VA 22202-5408


The Honorable Paul D. Ryan
Speaker of the House
U.S. House of Representatives
H-209, The Capitol
Washington, DC 20515

NOV 27 2018

Dear Mr. Speaker:

Pursuant to the reporting requirements of Section 36(b)(1) of the Arms Export Control Act, as amended, we are forwarding herewith Transmittal No. 17-43, concerning the U.S. Army's proposed Letter(s) of Offer and Acceptance to the Government of Egypt for defense articles and services estimated to cost \$1.0 billion. After this letter is delivered to your office, we plan to issue a news release to notify the public of this proposed sale.

Sincerely,


Charles W. Hooper
Lieutenant General, USA
Director

Enclosures:

1. Transmittal
2. Policy Justification
3. Sensitivity of Technology
4. Regional Balance (Classified Document Provided Under Separate Cover)

Notice of Proposed Issuance of Letter of Offer
Pursuant to Section 36(b)(1)
of the Arms Export Control Act, as amended

(i) Prospective Purchaser: Government of Egypt

(ii) Total Estimated Value:

Major Defense Equipment*	\$.751 billion
Other	<u>\$.249 billion</u>
TOTAL	\$1.000 billion

(iii) Description and Quantity or Quantities of Articles or Services under Consideration for Purchase:

Major Defense Equipment (MDE):

Ten (10) AH-64E Apache Attack Helicopters
Twenty-four (24) T700-GE-701D Engines, with containers (20 installed and 4 spares)
Twelve (12) Modernized Target Acquisition and Designation Sights
(MTADS)/Modernized Pilot Night Vision Sensors (PNVS) (10 installed and 2 spares)
Twenty-four (24) Honeywell Embedded Global Positioning System with Inertial
Navigation System (INS) (EGI) (20 installed, 4 spares)
Twenty-four (24) M299 Hellfire Launchers (20 installed, 4 spares)
One hundred thirty-five (135) Hellfire Missiles, AGM-114R
Five (5) M36E9 Captive Air Training Missiles (CATM)
Twelve (12) AAR-57 (V) Common Missile Warning Systems (CMWS), (10 installed, 2
spares)

Non-MDE:

Also included are M230 30mm Automatic Guns, AVR-2B Laser Detecting Sets, AN/ARC
201E Single Channel Ground and Airborne Radio Systems (SINCGARS), AN/APR-39D
Radar Warning Receivers, AN/AVS-6 Night Vision Goggles, and AN/ASN Doppler
Radar Systems. Also included in the request are avionics-related software support for the
Aviation Mission Planning Systems (AMPS), survivability equipment, communication
and electronic equipment, communication/electronics technical assistance, tools and test
equipment, integration and checkout, spares and repair parts, training and training
equipment, ferry and fuel support, publications and technical documents, U.S.
Government and contractor technical assistance, quality assurance, construction services,
and other related elements of logistics and program support.

(iv) Military Department: Army (EG-B-VGA)

(v) Prior Related Cases, if any: EG-B-ULB (22 Aug 90); EG-B-VBT (5 Oct 09)

(vi) Sales Commission, Fee, etc., Paid, Offered, or Agreed to be Paid: None

(vii) Sensitivity of Technology Contained in the Defense Article or Defense Services
Proposed to be Sold: See Attached Annex

(viii) Date Report Delivered to Congress: November 27, 2018

*As defined in Section 47(6) of the Arms Export Control Act.

POLICY JUSTIFICATION

Egypt – AH-64E Apache Attack Helicopters and Related Equipment and Support

The Government of the Egypt has requested to buy ten (10) AH-64E Apache Attack Helicopters, twenty-four (24) 1700-GE-701D Engines, with containers, twelve (12) Modernized Target Acquisition Designation Sights/Pilot Night Vision Sensors (M-TADS/PNVS), twenty-four (24) Honeywell Embedded Global Positioning Systems (GPS) with Inertial Navigation System (INS) (EGI) (20 installed, 4 spares), twenty- four (24) M299 HELLFIRE Launchers, one hundred thirty-five (135) HELLFIRE Missiles, five (5) M36E9 Captive Air Training Missile (CATM) AGM-114R, and twelve (12) AAR-57 (V) Common Missile Warning Systems (CMWS). Also included are M230 30mm Automatic Guns, AVR-2 B Laser Detecting Sets, AN/ARC 201E Single Channel Ground and Airborne Radio Systems (SINCGARS), AN/APR- 39D Radar Warning Receivers, AN/AVS-6 Night Vision Goggles, AN/ASN Doppler Radar Systems. Also included in the request are avionic-related software support for the Aviation Mission Planning Systems (AMPS), survivability equipment, communication and electronic equipment, communication/electronics technical assistance, tools and test equipment, integration and checkout, spares and repair parts, training and training equipment, ferry and fuel support, publications and technical documents, U.S. Government and contractor technical assistance, quality assurance, construction services, and other related elements of logistics and program support. The estimated cost is \$1.0 billion.

The proposed sale will contribute to the foreign policy and national security of the United States by helping to improve the security of a strategic partner in the Middle East region.

Egypt intends to expand its existing fleet of multi-mission heavy attack helicopters to address U.S.-Egyptian interest in countering terrorist activities emanating from the Sinai Peninsula that undermine regional stability. This sale will contribute to Egypt's military goal to update its capability while further enhancing greater interoperability between Egypt, the U.S., and other allies. Egypt will have no difficulty absorbing these additional helicopters into its inventory.

The proposed sale of this equipment and support will not alter the basic military balance in the region.

The principal contractors involved in this program are the Boeing Company, Meza, AZ, Lockheed Martin Corporation, Orlando, FL, General Electric Company, Cincinnati, OH, Lockheed Martin Mission Systems and Sensors, Owego, NY, and Raytheon Corporation, Tucson, AZ. There are no known offset agreements proposed in connection with this potential sale.

Implementation of this proposed sale will require twenty five (25) U.S. Government or contractor representatives to travel to the Government of Egypt for a period of 12 weeks for equipment

checkout and training.

There will be no adverse impact on U.S. defense readiness as a result of this proposed sale.

Notice of Proposed Issuance of Letter of Offer
Pursuant to Section 36(b)(1)
of the Arms Export Control Act

Annex
Item No. vii

(vii) Sensitivity of Technology:

1. The AH-64E Apache Attack Helicopter is an armed attack rotary wing aircraft in the Army inventory. The airframe itself does not contain sensitive technology; however, the aircraft contains communication and target identification equipment, navigational equipment, aircraft survivability equipment, displays and sensors. The highest level of classified material required to be released for training, operation and maintenance is UNCLASSIFIED; however, the highest level which could be revealed through reverse engineering or testing items is SECRET.

Components considered to contain sensitive technology in the proposed case are as follows:

- a. AN/AVR-2B, Laser Detecting Set- The AN/AVR-2B is a passive laser warning system that enhances crew situational awareness by detecting, identifying and characterizing all three types of laser threats 360 degrees in azimuth and +/- 45 degrees in elevation relative to the aircraft. The sensor units - each measuring approximately 8 inches long by 7 inches wide by 3 inches high, and weighing approximately 2.4 pounds - are mounted externally to provide aircraft protection in four quadrants. The externally mounted sensor units detect laser illumination over the entire aircraft. In operation, the laser warning system identifies the threat's direction and prioritizes in order of lethality. The hardware is classified CONFIDENTIAL; releasable technical manuals for operation and maintenance are classified SECRET.
- b. AN/AAR-57, Common Missile Warning System (CMWS) CMWS provides superior detection of infrared missile threats for rotary-wing, transport and tactical aircraft. It is the detection component of a suite of countermeasures to increase the survivability of current generation of combat, airlift and special operations aircraft against the threat posed by infrared guided missiles. Each platform includes: Electro-optical Missile Sensors, and Electronic Control Unit (ECU) Sequencer, and the Improved Countermeasures Dispenser (ICMD). The ECU hardware is classified CONFIDENTIAL; releasable technical manuals for operation and maintenance are classified SECRET.
- c. Honeywell Embedded Global Positioning Systems (GPS) with Inertial Navigation System (INS) (EGI). GPS/INS utilizes GPS satellite signals to correct or calibrate a solution from an INS. Inertial navigation systems usually can provide an accurate solution only for short duration. The INS accelerometers produce an unknown bias signal that appears as a genuine specific force. The EGI is UNCLASSIFIED.
- d. Target Acquisition and Designation Sights, Pilot Night Vision System (TADS/PNVs).

The TADS/PNVS is the combined sensor and targeting unit fitted to the Boeing AH-64 Apache helicopter. Both systems are independent, but housed together. TADS contain stabilized electro-optical sensors, a laser rangefinder and laser target designator. The TADS assembly can rotate ± 120 degrees in azimuth, $+30/-80$ degrees in elevation and can move independently of the PNVS. TADS contains a tomographic camera and monochrome daylight television camera. PNVS is mounted above the TADS, and contains an infrared camera slaved to the head movements of the pilot. PNVS can rotate ± 90 degrees in azimuth and $+20/-45$ degrees in elevation; with a high rate of movement (120 degrees per second) so as to match the head movement of the pilot. Hardware for the TADS/PNVS is UNCLASSIFIED. The technical manuals for authorized maintenance levels are UNCLASSIFIED. Reverse engineering is not a major concern.

e. The AGM-114R HELLFIRE Missile is precision strike, Semi-Active Laser (SAL) guided missile and is the principle air to ground weapon for the AH-64 Apache. The SAL HELLFIRE missile is guided by laser energy reflected off the target. It has three warhead variants: a dual warhead, shape-charge, high explosive anti-tank capability for armored targets, a blast fragmentation warhead for urban patrol boat and other soft targets and metal augmented charge warhead for urban structures. AGM-114R allows selection of warhead effects corresponding to a specific target type. Hardware for the AGM-114R is UNCLASSIFIED. The technical manuals for authorized maintenance levels are UNCLASSIFIED.

f. The AN/APR-39D(V)2 Radar Warning Receiver is currently in development with a projected IOC date of 4Q2017, and will replace the AN/APR-39A(V)1/4 Radar Warning Receiver (RWR) that has been in production since the mid-1970's. The AN/APR-39D(V)2 is an Engineering Change Proposal (ECP) that fixes documented deficiencies against legacy AN/APR-39 systems by merging the AN/APR-39C(V)2 baseline with Northrop Grumman's Digital Receiver Excited (DRE) technology and combines a 4-Channel Crystal Video Receiver (CV R) and a 2 channel Digital Receiver (DR). The result is the following capability improvements: increased Probability of Detection (Sensitivity); Corrects ID/Ambiguity Resolution; Improves DOA Accuracy versus Circular Polarized (CP) Emitters; and improves DOA Indications versus CID Band Emitters. System will be classified at the SECRET level.

g. The M36E9 Captive Air Training Missile (CATM) is a HELLFIRE training missile (Non-NATO) that consists of a functional guidance section coupled to an inert missile bus. The missile has an operational semi-active laser seeker that can search for and lock-on to laser designated targets for pilot training, but it does not have a warhead or propulsion section and cannot be launched.

2. A determination has been made that Egypt can provide substantially the same degree of protection of this technology as the U.S. Government. This proposed sale is necessary in furtherance of U.S. foreign policy and national security objectives outlined in the Policy Justification. Moreover, the benefits to be derived from this sale, as outlined in the Policy

Justification, outweigh the potential damage that could result if the sensitive technology were revealed to unauthorized persons.

3. All defense articles and services listed on this transmittal are authorized for release and export to the Government of Egypt.

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